(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 21 May 2004 (21.05.2004)

PCT

(10) International Publication Number WO 2004/041179 A3

(51) International Patent Classification⁷:

A61K 38/00

(21) International Application Number:

PCT/US2003/034511

(22) International Filing Date: 30 October 2003 (30.10.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/422,105

30 October 2002 (30.10.2002) US

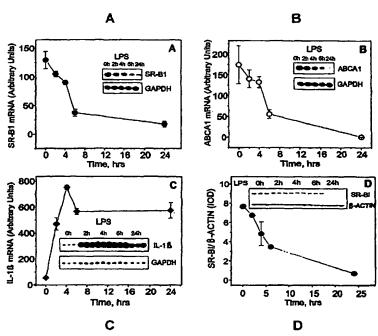
- (71) Applicant (for all designated States except US): THE UNITED STATES OF AMERICA as represented by THE SECRETARY OF HEALTH AND HUMAN SER-VICES, NIH [US/US]; Office of Technology Transfer, 6011 Executive Boulevard, Suite 325, Rockville, MD 20852 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BOCHAROV, Alexander, V. [RU/US]; 11436 Mapleview Drive, Silver Spring, MD 20892 (US). BARANOVA, Irina, N.

[RU/US]; 3 Pooks Hill Rd 517, Bethesda, MD 20814 (US). CSAKO, Gyorgy [US/US]; P.O. Box 10576, Rockville, MD 20849 (US). EGGERTON, Thomas, L. [US/US]; 10900 Earlsgate Lane, Rockville, MD 20852 (US). PATTERSON, Amy, L. [US/US]; 10900 Earlsgate Lane, Rockville, MD 20852 (US). REMALEY, Alan,T. [US/US]; 4510 Traymore Street, Bethesda, MD 20814 (US). VISHNYAKOVA, Tatyana, V. [US/US]; 11436 Mapleview Drive, Silver Spring, MD 20892 (US).

- (74) Agent: AUERBACH, Jeffrey, I.; Liniak, Berenato, & White, LLC, 6550 Rock Spring Drive, Suite 240, Bethesda, MD 20817 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: SCAVENGER RECEPTOR B1 (CLA-1) TARGETING FOR THE TREATMENT OF INFECTION, SEPSIS AND INFLAMMATION



(57) Abstract: This invention relates to methods and compositions for the treatment of sepsis, inflammation or infection. In particular, the invention concerns the use of molecule(s) that target SR-BI, which is also referred to as CLA-1 (SR-BI/CLA-1), to treat sepsis, bacterial and viral infections, and inflammatory diseases. SRB I/CLA-1 ligands contributing to the pathogenesis of disease include LPS, LTA, viral envelope proteins, beta-amyloid, serum Amyloid A and/or heat shock proteins.

WO 2004/041179 A3



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 8 July 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/34511

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A61K 38/00			
US CL : 514/12, 2, 13, 14; 530/300, 324, 325, 326			
According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED			
		4 h	
Minimum documentation searched (classification system followed by classification symbols) U.S.: 514/12, 2, 13, 14; 530/300, 324, 325, 326			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where a		
A	US 6,664,230 B1 (FOGELMAN et al.) 16 Decemb	ber 2003 (16.12.2003), see entire 1-26	
A	document. CHINETTI et al. CLA-1/SR-BI is Expressed In Atherosclerotic Lesion Macrophages and 1-26 Regulated by Activators of Peroxisome Proliferator-Activated Receptors, Circulation. 2000, Vol. 101, pages 2411-2417. See entire document.		
A	BUECHLER et al. Lipopolysaccharide Inhibits the Expression of the Scavenger Receptor Cla-1 in Human Monocytes and Macrophages. Biochemical and Biophysical Research Communications. 1999, Vol. 262, pages 251-254. See entire document.		
		·	
Further	documents are listed in the continuation of Box C.	See patent family annex.	
• S ₁	pecial categories of cited documents:	"T" later document published after the international filing date or priority	
"A" document of particu	defining the general state of the art which is not considered to be lar relevance	date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"E" carlier ap	plication or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is	
O document	referring to an oral disclosure, use, exhibition or other means	combined with one or more other such documents, such combination being obvious to a person skilled in the art	
P document published prior to the international filing date but later than the priority date claimed		*&" document member of the same patent family	
Date of the actual completion of the international search		Date of mailing of the international search report	
04 March 2004 (04.03.2004)		2 4 MAY 2004	
Name and mailing address of the ISA/US		Authorized officer	
Mail Stop PCT, Attn: ISA/US Commissioner for Patents		Authorized officer B. Dell Chism 7. Robe & Gr	
P.O. Box 1450 Alexandria, Virginia 22313-1450		Telephone No. (571) 272-1600	
Facsimile No. (703)305-3230			

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT	PCT/US03/34511		
•			
Continuation of B. FIELDS SEARCHED Item 3: STN WEST BIOSIS MEDLINE SCISEARCH REGISTRY CAPLUS search terms: sepsis, peptide, protein, inflammation, infection, bacteria, viral			

Form PCT/ISA/210 (second sheet) (July 1998)